REMARKS

Claims 1-13 are pending in this application. By this Amendment, claims 1-10 and 12 are amended and claims 14-24 are canceled. Support for the amendments to the claims may be found, for example, in canceled claim 14. No new matter is added.

In view of the foregoing amendments and following remarks, Applicant respectfully requests reconsideration and allowance.

I. Claim Objections

The Office Action objects to claims 7-10, 12, 14, 15, and 20-24 because a multiple dependent claim cannot depend from a multiple dependent claim. By this Amendment, claims 14, 15, and 20-24 are canceled rendering their objection moot. As to the remaining claims, Applicant points the Examiner's attention to the Preliminary Amendment filed July 21, 2005, where the multiple dependencies were eliminated. This Preliminary Amendment was acknowledged by the Patent Office in the March 13, 2006 Notification of Missing Requirements. Applicant also notes that this Amendment makes amendments to the claims as amended in the Preliminary Amendment. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the objections.

II. Rejection Under 35 U.S.C. §103

The Office Action rejects claims 1-24 under 35 U.S.C. §103(a) over Nibou et al., Chemical Fabrication $SrBi_4Ti_4O_{15}$ Thin Films, 19 Journal of European Ceramic Society 1383 (1999) ("Nibou") in view of EP000877100 to Desu et al. ("Desu "). By this Amendment, claims 14-24 are canceled, rendering their rejection moot. As to the remaining claims, Applicant respectfully traverses the rejection.

By this Amendment, independent claims 1 and 3-5 are amended to recite:

> A dielectric thin film including a bismuth layer compound having a c-axis oriented vertically with respect to a substrate surface, wherein:

the bismuth layer compound is composed of a thin film capacitance element composition...

The combination of Nibou and Desu would not have rendered obvious claims 1 and 3-5 for at least the following reasons.

Nibou does not teach or suggest a dielectric thin film having a "bismuth layer compound having a c-axis oriented vertically with respect to a substrate surface" as claimed. The Office Action, at page 2, asserts that Nibou is silent as to the orientation of the c-axis. The Office Action, at page 3, also asserts, citing to paragraphs [0015] and [0022]-[0024] of Applicant's specification, that "if m=2, 4, 6, or 8, the crystal structure will have the C-axis oriented vertically to a substrate surface." The Office Action then asserts, at page 3, that because Nibou discloses a compound where m is an "even" integer, Nibou necessarily or inherently teaches the claimed c-axis orientation. Applicant respectfully disagrees with these assertions.

The Office Action mischaracterizes the Applicant's disclosure. Nowhere does the specification indicate that "if m=2, 4, 6, or 8, the crystal structure will have the C-axis oriented vertically to a substrate surface." Instead, the specification indicates that, in combination with many other parameters, if 'm' in the composition formula of the bismuth layer compound is 2, 4, 6, or 8, it will improve the degree of c-axis orientation. *See* paragraph [0024]. Thus, disclosing how to improve the degree of c-axis orientation does not expressly or implicitly teach that if m = 2, 4, 6, or 8, the crystal structure inherently or necessarily will exhibit c-axis orientation. In fact, it is well known in the art that obtaining c-axis orientation is dependent on both the composition of the starting materials and the methods used in making the thin films.

This is evidenced by Nibou. Although Nibou discloses a Bi composition where m is an even number, the thin films disclosed by Nibou are starkly different from the films of

claims 1–13. Despite the Office Action's assertions, Nibou is not silent on the orientation of the c-axis. One of ordinary skill in the art would readily recognize that the XRD patterns shown in Figure 6 of Nibou that the film is not c-axis oriented. In addition, Figure 6 also shows that $Bi_2Ti_2O_7$ and $SrBi_4Ti_4O_{15}$ are separated into two phases, as opposed to the single phase exhibited by the claimed films. *See also* Nibou at pages 1385-1386. These differences between Nibou's films and the claimed films can be caused by conditional differences, such as the temperature of the preliminary firing or the firing atmosphere (the oxygen atmosphere in the present disclosure, *see, e.g.,* paragraph [0052]).

Thus, the films disclosed by Nibou do not inherently meet the c-axis orientation required by the claims. Desu does not, nor is it asserted to, cure this deficiency. Accordingly, the combination of Nibou and Desu is deficient with respect to amended claims 1 and 3-5.

Claims 1 and 3-5 would not have been rendered obvious by Nibou and Desu. Claims 2 and 6-13 depend from claim 1 and, thus, also would not have been rendered obvious by Nibou and Desu. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection.

III. Conclusion

In view of the foregoing, Applicant respectfully submits that this application is in condition for allowance. Applicant earnestly solicits favorable reconsideration and prompt allowance of the application.

Should the Examiner believe that anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff
Registration No. 27,075

Ryan R. Brady
Registration No. 62,746

JAO:RRB/rrb

Date: July 2, 2009

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461